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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,901	04/26/2000	Michael A. Margules	SIG980508	1742

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Garlick, Harrison & Markison LLP
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EXAMINER

GHULAMALI, QUTBUDDIN

ART UNIT PAPER NUMBER

2631

DATE MAILED: 05/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/558,901

Applicant(s)

MARGULES, MICHAEL A.

Examiner

Qutub Ghulamali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 13-21 is/are rejected.
- 7) ☒ Claim(s) 9, 11, 12, 22, 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 2 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 19 recite the limitation "masking" in line 2 and "mask" in line 4 of claims 2 and 19 respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 10, 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Inagawa et al (US Patent No. 4,453,260). Inagawa et al teaches (fig. 1) a synchronizing circuit connected to receive clock pulses 2 and a digital input signal 1 having a plurality of frames, a frame sync signal detector means 3 for detecting the frame sync signal to produce sync detect output signal, first window generating means responsive to the first counting means (frame transition) to determine transition, synchronizing to the data rate based on the preceding transition (first counting means) and a subsequent transition second window connected to third

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counting means forming a window output signal at time intervals taken for the third counting means to count substantially N clock pulses, together with a clock signal generated on the basis of an output signal of a phase locked loop (PLL) circuit (col. 1, lines 41-47, col. 2, lines 7-15 and col. 3, lines 1-57).

Regarding claim 3, Inagawa teaches (fig. 3) phase lock loop 121 contain a divider producing a recovered data clock based on the output of the PLL (col. 1, lines 41-58).

Regarding claim 10, Inagawa teaches (fig. 3) an edge detector 122a coupled to receive data, detect edges (change points) of the data signal (col. 5, lines 26-53).

Regarding claim 18, Inagawa teaches (fig. 3) system controller 117 with a microcomputer provide operational instructions (command) to process various functions a-d (col. 5, lines 60-68 and col. 6, lines 1-39).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 5, 6, 13, 14, 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inagawa et al (US Patent 4,453,260) in view of Yeoh et al (US Patent 5,726,650). Inagawa et al teaches every feature of the claimed invention but does not explicitly teach a current count based on a number of clock cycles of the output of the PLL, compare the current count with a stored minimum count and decrementing the stored minimum count when the current compares

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unfavorably to the stored minimum count. In the same field of endeavor, Yeoh et al teaches (col. 13, lines 17-22), a clock recovery process, TTDLOGIC block 203 dynamically tracks the clock cycles of the Manchester code, compares the clock with the system clock prestored in a bank of flip flops, increase or decrease the count if the clock is faster or slower than the system clock and maintaining the stored count to maintain a constant recovered clock (col. 13, lines 20-42).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Inagawa et al method so as to provide counting means to enhance the data recovery process as taught by Yeoh et al.

Allowable Subject Matter

7. Claim 9, 11, 12, 22, 23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dove et al (US Patent 6,088,414) and DeLuca et al (US Patent 5,181,227) provide information related to data detection and recovery.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (703) 305-7868.

The examiner can normally be reached during normal business days Monday-Friday from 8:00AM - 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are 703 305-3988 for regular communications and 703 305-3988 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-4750.

QG.
May 7, 2003



DON N. VO
PRIMARY EXAMINER